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Plentiful foods for December

Changes in Packers and Stockyards Act

Special service for institutional buyers

AGRICULTURAL MARKETING SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE

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# Plentiful Foods

## FOR DECEMBER

DECEMBER can lay rich claim to its title as merriest month of the year. This is the month for rejoicing. And this year, in particular, there is much to rejoice about.

In 1958, America's farmlands produced a most bountiful harvest. From our Nation's fields and orchards came abundant supplies of almost every commodity—from the more basic crops such as corn, cotton, oats, wheat, and soybeans to the more specialized production of fruits and vegetables, poultry, meat, and eggs.

This record-breaking production has brought an enviable variety of foods to USDA's Plentiful Foods List, which includes turkeys, broilers and fryers, apples, cranberries, canned ripe olives, walnuts, honey, dates, and frozen and canned berries of many kinds. Also, canned and frozen peas, peanuts and peanut products, dry edible beans, and vegetable fats and oils.

Here are a few production highlights on some of these "plentiful" foods. Farmers produced something like 78 million turkeys. The 125 1/3-million bushel apple crop is the largest since 1949. Cranberries turned in the largest crop in 5 years. The walnut crop is the largest since 1949. And the peanut harvest exceeds any since 1950.

In many winters of the past American consumers have not been so fortunate as in this year of abundant foods. Our history records many bleak Decembers when even the most necessary foods were in meager supply.

From those long past years when the earliest settlers sank their plows deep in America's rich soil, our farm-

ers have come a long, long way, production-wise. Today, each farm worker produces, on the average, enough agricultural products—that is, food fiber, and tobacco—to supply the needs of more than 23 persons. That's more than twice the 11 persons his harvest supported in 1940, and indeed a far cry from only 4 persons his labors provided for back in 1820. And, what's more, over one-half of this longtime increase in farm worker efficiency has come about within the past 15 years.

Food shopping this December will be a cinch for the American housewife, with today's magical stores, large and small, serving every neighborhood, and outlying shopping centers spaced only a few miles apart on highways ribboning the countryside.

Now it is only a stone's throw, marketwise, to a plump turkey or a ham that modern preparation methods have made ready for the oven. Apples, citrus, and other tasty fruits and vegetables are piled neatly in nearby market bins, ready for sale. Today's market shelves hold everything the kitchen requires—from such items as flour and butter to delicacies from the far corners of the earth, waiting to be selected for the holiday feasts.

The kitchen has really come of age in our time, thanks to today's scientific production and marketing strides. No longer does man have to tramp into the frozen woods or fields in search of food. It is ready and waiting for him in abundant supply, with neon-lighted fingers pointing out the way to enjoyment of the merriest of Christmases.

USDA'S Plentiful Foods List is a monthly compilation of foods found to be in plentiful supply throughout the country during a certain 30-day period. This list, distributed 4 to 6 weeks in advance, goes to more than 45,000 members of the food

industry. Included are producer groups, the wholesale-distributive trade, grocery chains, restaurants, and other food service establishments.

Copies of the monthly list will be sent regularly to interested persons and organizations upon request.







by J. Scott Hunter

**I**T MAY BE hard for the average housewife to tell the difference between two peas in a pod, but she certainly has no trouble distinguishing one grade of frozen peas from another. In a recent consumer preference study of 225 families, respondents showed a definite preference for Grade A peas and, in turn, liked Grade B peas better than Grade C.

The research which turned up this information was conducted by the Marketing Research Division of AMS at the request of the Fruit and Vegetable Division. Its purpose was to find out just how closely consumer preferences matched the official grading standards used by the Department of Agriculture.

Householders rated samples of frozen peas along a 10-point scale, ranging from "liked extremely" to "disliked extremely." They were not told that the experiment concerned peas of different grades. They were simply asked to check how well they like the particular peas being tested.

On this basis, the average score of the Grade A peas was 8.8. Grade B peas scored 7.6 points, and Grade C, 7.2.

It was concluded that the closeness in ratings between B and C grades probably was due to the fact that the Grade C peas included in the survey were not a homogeneous lot of the

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lower grade. Instead, they were a mixture of immature and overmature peas. This made the spread in quality between Grades C and B much less than the spread between Grades B and A.

This same closeness between Grades B and C was shown in a comparison of favorable and unfavorable comments. While 74 percent of the households were completely satisfied with Grade A peas, only 53 percent found Grade B peas perfectly acceptable, and 47 percent considered Grade C peas to be all right.

Usually, taste was the deciding factor in rating the quality of the peas. Tenderness, however, was also important, followed by color and size.

Interestingly enough, as the test period progressed, the consumers became more critical. Although the preference position of the grades remained the same, the ratings for each grade fell slightly. Grade A frozen peas, for example, received a 9.1 rating the first week, but rated only 8.9 points the second week and 8.5 the third.

The increasing awareness of quality values only served to confirm the previous choices of the respondents. Throughout the test, Grade A, B, and C peas were generally rated in that order.

This study shows that consumer preferences agree closely with the standards of grading set by the U. S. Department of Agriculture in cooperation with the frozen food industry.

## Florida Citrus Subject to Export Regulations

For the first time, Florida citrus will be subject to export regulations. Grade and size limitations were announced recently for all Florida citrus fruits going to countries other than Canada and Mexico. Canada and Mexico will continue to be subject to domestic regulations.

The new requirements state that all fruit must grade U. S. No. 2 or higher. Oranges, except Temples, must be size 360 or larger. Temple oranges must have a minimum diameter of 2½ inches, with 10 percent tolerance for under-size fruit; grapefruit must be size 150 or larger; tangerines, 294 or larger; and tangelos, 346 or larger. All citrus exports must be inspected by a Federal or Federal-State inspector.

The new regulations will be effective through July 30, 1959.

## Cooling Needed for Shipments of Citrus Fruits Abroad

There IS something Florida citrus shippers can do to get their fruit overseas in better condition.

- They can ship the fruit in properly cooled holds.
- They can precool their oranges and grapefruit before loading to assure lower temperatures during the early part of the trip.
- And, they can reduce the time between harvesting and loading to leave more shelf life for the marketing period.

According to Agricultural Marketing Service scientists, these few precautionary measures will help Florida growers and shippers bring to European markets a much better fruit that can successfully compete with foreign citrus.

## Prospects for Citrus Fruit

The early and midseason crop of oranges in prospect is 2 percent larger than last year; the tangerine crop is about double the light 1957-58 production; while the grapefruit crop (excluding the California summer crop) is up about 7 percent.

# Service for Institutional Buyers

by Mary T. Swickard

**R**ESTAURANT managers and other institutional buyers can be sure of getting the kind of poultry and eggs they want by utilizing the acceptance type of Federal-State grading service.

Designed especially for institutional buyers, this service is available in all 48 States. Here's how it works:

The buyer writes specifications indicating the kind, quality, size, and other qualifications of the items he wants. Then, he takes bids and makes his contract with a supplier. He is careful to specify that all deliveries will be inspected by a USDA grader and officially "accepted" as meeting the specifications.

The grader is then notified when the shipment is ready for delivery. If, after examining it, he is satisfied that it meets grade and other contract requirements, he stamps each case with the official acceptance stamp and seals it to prevent tampering or substitutions.

The grader also stamps the invoice to show that the shipment has met specifications and payment is in order. He provides the buyer with a statement certifying the quality and weight (size) of eggs and the quality, class, weight, or other requirements of the poultry.

Users of this type of grading service should require that the acceptance inspection be made 1 or 2 days before delivery. This provides them with the added assurance that the quality of the product will not drop between the time of inspection and the actual delivery.

Institutional buyers often base their specifications directly on the U. S. grades for eggs and poultry. In such cases, all they need to do is state the quality grade and size they want in the eggs and the needed quality, style, class, and weight range for the poultry, and require that the products be officially graded and the containers stamped with the grade.

Some of the things buyers should specify in ordering poultry are:

Mrs. Swickard is a home economist in the Poultry Division of AMS.



USDA acceptance service assures buyer that these eggs are the same quality, size as was ordered.

**Type:** Fresh-chilled or frozen. This is an important point. Fresh-chilled poultry can be held at 40° F. for 3 or 4 days, but should be used within a few hours of delivery if cooling facilities are not available. On the other hand, frozen poultry requires time for thawing before cooking, 2 to 4 days at 40° F., depending on the size of the bird. Poultry bought frozen should be cooked promptly after thawing.

**Class:** "Fryer-roaster," "Young Tom," "Hen Turkey," etc., for turkeys; "Frying Chicken," "Stewing Chicken," "Roaster," etc., for chickens; "Duckling" or "Mature" for ducks. Class designations are based on characteristics due to age and sex, and in many cases reflect the method of cooking for which the poultry is to be used. It should be remembered that sex of turkeys may make a substantial difference in price.

**Size or weight:** Calculated with the serving portion in mind. For instance, a quarter-chicken serving of a certain weight may be required, or portions of sliced roasted turkey of the required weight may be most economically provided by a turkey of a specified weight.

**Style:** Ready-to-cook, whole, halves, quarters, parts.

**Grade:** Quality as determined by fleshing, fat covering, and freedom from such defects as cuts, tears, and discolorations. The U. S. grades for poultry are A, B, and C. Because of its more desirable appearance, U. S. Grade A turkey is recommended for carving at the buffet table and U. S. Grade A chicken for serving whole, halved, or quartered. This grade also generally carries a larger amount of meat for the carcass weight than Grade B or Grade C. U. S. Grade B birds may be quite satisfactory where they are to be served in cut-up or sliced portions, but parts of these birds may weigh less than like parts of Grade A birds.

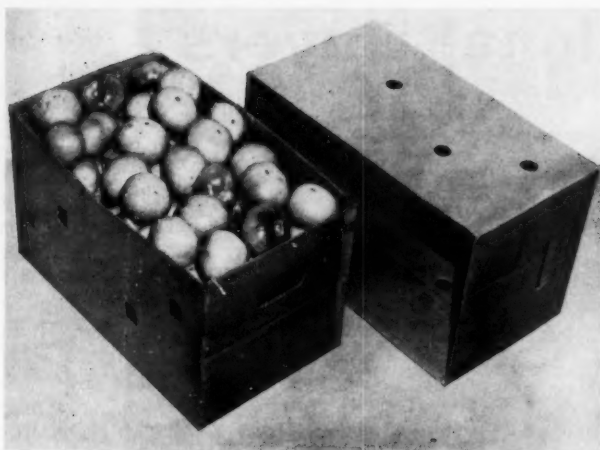
As for eggs, unless the institutional buyer has special requirements in regard to shell color or uniformity of size, he can write specifications very simply by naming the U. S. grades and weight classes desired.

There are four official grades: U. S. Grades AA, A, B, and C. U. S. Grade A or AA is ordinarily preferred when the eggs are to be poached, fried, or hard-cooked. Grades B and C are satisfactory for other cooking and may afford quite a saving.

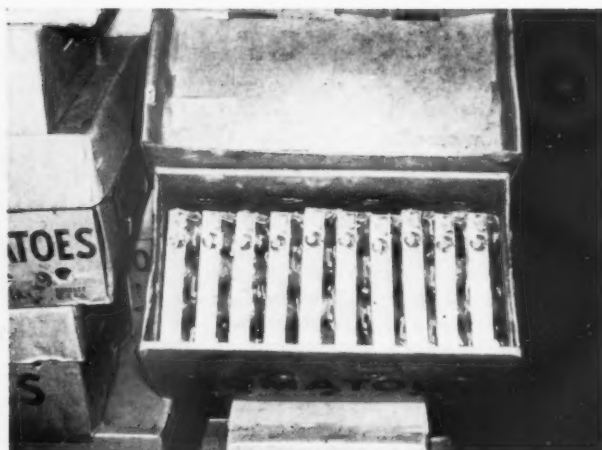
The official weight classes are based on the minimum weight per dozen and are called Jumbo, Extra Large, Large, Medium, Small, and Peewee. Large and Medium eggs are most commonly used for single servings, with Extra Large occasionally featured. Medium and Small eggs are sufficiently large for most other uses and are often economically priced during the late summer and early fall.

Both the poultry and egg acceptance services are supervised by the Poultry Division of AMS. Arrangements for using these services may be made by applying to the USDA grading office in the nearest large city, or to the Poultry Division.

A nominal charge is made for the service. This charge may be borne by either the purchaser or supplier, as specified in the contract.



Dual-purpose shipping container carries tomatoes all the way through marketing process. Here, 50-pound box is used for bulk shipment of tomatoes.



Same container used for bulk shipment to terminal market can be reused as master unit to carry small tubes of ripened tomatoes to the retail store.

## Dual-Purpose Shipping Containers for Tomatoes

by Philip L. Breakiron

**S**HIPPERS and repackers of mature-green tomatoes can reduce their marketing costs by using dual-purpose containers to move their produce to market. Designed to carry tomatoes all the way from the packing shed to the retail outlet, this type shipping box offers substantial savings in container costs, in packaging, loading, transportation, and repacking.

The same containers that are used for bulk shipment to the terminal markets can be reused as master containers to carry small tubes, or trays, of ripened fruit to retail stores.

In dollars and cents, this means that marketing men can save 2.2 cents a pound by shipping a carload of tomatoes from California to a retail store in New York in 50-pound dual-purpose boxes instead of conventional 30-pound lugs. For the entire carload, the savings would be \$500.

Comparable savings on a shipment from Florida to New York run about \$140 a carload, or 0.6 cent a pound, when 40-pound dual-purpose containers are used instead of 60-pound crates.

The amount saved by shippers and repackers varies with the cost of labor and materials as well as the way in which the containers are used.

The author is a staff member of the Marketing Research Division of AMS.

The research study which pointed up the cost advantages of handling tomatoes in the new dual-purpose containers was conducted by the Marketing Research Division of AMS. It covered a 3-year period and included labor and material cost studies in packinghouses in Florida and California and repacking plants in four major terminal markets in the East.

AMS personnel checked 122 test shipments of tomatoes to determine the extent of fruit bruising and container damage during transit. To find the comparative cooling rates and transit temperatures of the fruit shipped in each type container, 59 test shipments were studied. Both truck and rail shipments, from Florida and California, were included.

These shipping tests showed that container damage during transit for each of the 3 types of dual-purpose containers was relatively low. It compared favorably with that found in check shipments of conventional crates and lugs.

Inspection of the fruit at terminal markets also showed that fruit bruising in the 40- and 50-pound dual-purpose containers was about the same as that in lugs and crates. Fruit temperatures and ripeness upon arrival at the repacking plants were also found to be satisfactory in the new type containers.

Cooling rates, too, met the requirements of the industry. The same schedule of railroad protective services recommended for shipment of California fall tomatoes in lugs can be used for shipment of fruit in dual-purpose containers.

A more detailed account of the performance and potential savings of dual-purpose containers may be found in Marketing Research Report No. 257, "Efficiency and Potential Economies of Dual-Purpose Shipping Containers for Mature-Green Tomatoes." Single copies may be obtained without charge from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

### Prospects for Tomatoes

With estimated tomato yields the second highest on record and 14 percent above last year, canners and distributors had a processing crop of 4.2 million tons. This means heavy supplies of tomato juice and tomato products, and some increase in tomatoes.

At the beginning of the current season, stocks of tomato juice and most tomato products were down; stocks of tomatoes were lightest since 1951. These small stocks will be more than offset by the large 1958 output.



# Flaxseed Storage at Country Elevators

by William M. Manion

**F**LAXSEED is a risky, inconvenient crop to store, and farmers prefer to put it in country elevators. Therein lies a problem.

Ninety-five percent of the annual flaxseed crop comes from the North Central States. Elevator space in this area is at a premium. Yet, flaxseed storage more than doubled during World War II and since then has continued at record levels. One-third of the flaxseed received at country elevators during the 1955-56 marketing year went into elevator storage.

Many elevator managers, however, consider flaxseed less desirable to store than other grains. It has a high dockage content and low test weight; it is sensitive to moisture; and it costs more for insurance coverage. Shrinkage losses also are greater for flaxseed than other grains due to its higher value.

A recent Agricultural Marketing Service study shows that about half the country elevator operators limit the amount of flaxseed received for storage. A fourth limit purchase receipts for lack of sufficient storage space.

These storage limitations vary di-

rectly with the ratio of flaxseed handled to elevator capacity and inversely with elevator size. Only 34 percent of large elevators having 160,000-bushel capacity or more limit flaxseed receipts. Fifty-eight percent of those with less than an 80,000-bushel capacity set limits. The average period of limitation was 2½ months.

Elevator managers may relieve their limited storage capacity by cleaning dockage from flaxseed and marketing the screenings. Or, they may move elevator-owned grain to terminal markets as quickly as possible.

Because of the high dockage content and low test weight of flaxseed, a bin of uncleaned seed actually holds only 75 percent of its rated capacity. Little can be done about low test weight. However, by reducing the dockage content, the amount of flaxseed going into storage may be increased. The sale of screenings usually will cover the cost of cleaning.

Also, cleaning reduces the risk of mold growth and heating which results from the presence of high-moisture weed seeds. In uncleaned flaxseed, there is a transfer of moisture between green weed seeds and the flaxseed

until a point of equilibrium is reached. It may take several months before flaxseed containing not more than 10 percent moisture becomes subjected to mold growth.

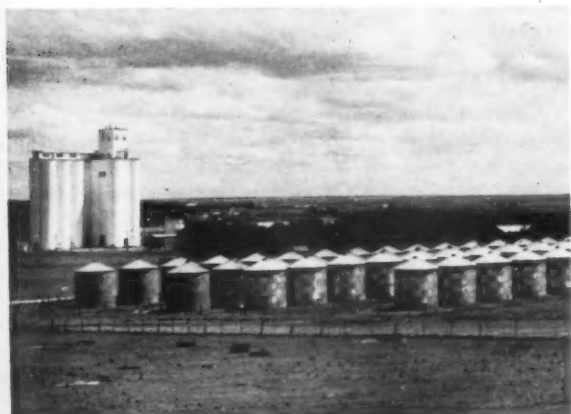
It may be only a matter of weeks if the flaxseed contains 11 percent or more moisture.

Of the total country elevator capacity surveyed, 83 percent was considered suitable for flaxseed storage. Wooden cribs make up 68 percent of the total capacity and account for 73 percent of that suitable for flaxseed storage. Concrete structures provide 13 percent of the total capacity and 17 percent of the space suitable for flaxseed.

Country elevator operators are willing to use 70 percent of their total capacity for commercial grain storage. Up to 31 percent of this could be used for flaxseed during the peak of the harvest season.

In practice, however, only 63 percent of the total average capacity is allocated to commercial storage, while 37 percent is retained for operating space by the elevator. About 18 percent of the commercial storage space is used for flaxseed.

William M. Manion is an agricultural economist in the Marketing Research Division of AMS. He is stationed at St. Paul, Minn.



## The Surplus of Wheat

Total wheat supplies for the year beginning July 1, 1958, are estimated at 2,340 million bushels—14 percent above the previous record in 1956-57. Supplies consist of a carryover of 881 million bushels, production of 1,449 million, and an allowance for imports of about 10 million bushels.

Domestic disappearance in 1958-59 is estimated at about 610 million bushels, not greatly different from recent years. Exports may total about 430 million bushels compared with 402 million in 1957-58.

The carryover of wheat at the end of the 1958-59 marketing year may be about 1,300 million bushels, about 420 million above July 1, 1958 and the largest in our history.



Formerly, only "posted" livestock markets of 20,000 or more square feet came under the Packers and Stockyards Act. Now, all markets doing interstate business must observe the regulations of the Act.

**ARE YOU** a livestock or poultry producer—are you a consumer—or are you performing any of the marketing, slaughtering, processing, or merchandising jobs in between?

Whichever of these categories you fit, you undoubtedly will benefit from the broader protection now provided by the Packers and Stockyards Act. If you perform one of the "in-between" jobs and are involved in interstate commerce, you probably are subject to the regulations of the Act. A recent amendment to this law extends its provisions to almost all persons dealing with interstate marketing of livestock.

The Act, in essence a code of ethics for the industry, sets out rules of fair business practice which provide protection for the farmer and consumer as well as for the livestock and poultry marketing and meat packing industries. The new amendment makes this protection more far-reaching than ever before.

Formerly only livestock markets doing interstate business and covering 20,000 or more square feet came under the jurisdiction of the Act. Also, only transactions at "posted" livestock markets were then subject to regulation.

Now markets of all sizes come under the law and any dealer or agency handling livestock (interstate) must

observe these rules of fair and honest business practice.

The new amendment to the P & S Act, in fact, eventually could provide all farmers who sell their livestock at any market or to any dealer or agency engaged in interstate commerce with the same protection that they now obtain at the larger "posted" markets. (A "posted" market is simply one that has been found subject to the Act and at which notices to that effect have been "posted" in three conspicuous places by USDA, the agency which administers the Act.)

The amendment also divides jurisdiction over packers and chain stores engaged in meat packing operations between USDA and the Federal Trade Commission.

The effect of this division is to give FTC the jurisdiction, formerly exercised by the Department, over retail sales and over the manufacture and merchandising by packers of non-meat items such as oleomargarine, ice cream, and leather and sporting goods. Responsibility for all other operations of meat packers remains with USDA.

However, in certain instances when it is necessary, either USDA or FTC may step into the field over which the other has primary jurisdiction.

The Department, in particular the Packers and Stockyards Branch, Livestock Division, Agricultural Marketing

What they may mean to you

## Changes in Pa

Service, which is charged with carrying out the provisions of the law, retains its traditional role in:

1. Safeguarding farmers and ranchers from marketing practices which would deprive them of the true market value of their livestock and poultry;

2. Protecting consumers against unfair business practices in the marketing of meats and poultry; and

3. Protecting members of the livestock and poultry marketing and meat industries from unfair, deceptive, unjustly discriminatory, or monopolistic practices of competitors, large or small.

To see how the Act protects the packer and the consumer from unfair competition, let's take the case of a packer who believes he is losing his market for his product because a competitor is selling a similar product in his market area at less than cost in order to drive him out of business.

Let's say that the other firm can do this because it sells a more diversified line and can absorb losses on this product with profits on other items or on sales in other areas. The first packer, although as efficient as his competitor, cannot long meet this unfair competition since he must sell his product at a profit in order to continue in operation.

What can he do about it? He can notify the Department that this unfair practice exists and provide information on the situation. The Department can then investigate to see whether or not the other firm is competing unfairly or discriminating unjustly against him. If an unlawful practice is uncovered, the Department can compel its discontinuance.

In many instances the P & S Act may provide the only available protection against such "unfair and discriminatory practices."

This is protection for the consumer as well as the packer. Though the consumer may benefit from lower

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# Packers and Stockyards Act

by GLENN G. BIERMAN

prices while one firm is selling below cost, he may later be faced with higher prices than existed formerly if one firm gains control of the local market.

The P & S Act provides protection against dishonest and unscrupulous practices. Representatives of the P & S Branch are especially anxious to prevent unfair competition through misrepresentation of the quality, manufacture, or value of a product. Such practices deceive the consumer and can drive the honest firm out of business.

At present, the Department is studying methods of eliminating misrepresentation of the quality of meat through misuse of the Federal grade terms specified in U. S. standards for meat.

Just recently a packer complained that one of his competitors was misrepresenting the quality of his beef by rolling carcasses with his own "Good" stamp. When these carcasses were checked by a Federal grader, not one measured up to the U. S. standards for the USDA Good grade. They ranged instead from the USDA Standard grade down through USDA Cutter and Canner.

Obviously such inferior carcasses could be sold more cheaply than true USDA Good beef and the consumer, relying on the grade term used, could be deceived by the false quality representation. Left unchecked, this practice could destroy fair competition and undermine the usefulness of the Federal meat grades—both for the honest packer and retailer and for the consumers who depend upon them as unvarying and reliable indications of quality.

The P & S Act is designed to provide farmers and ranchers with five-way marketing protection by requiring:

- *Accurate weights.* Posted markets, and now all buying stations, dealers, and marketing agencies (in interstate commerce) will be obligated under the law to have accurate scales.

- *Protection of their funds.* The law contains authority to require all marketing agencies and dealers (subject to the Act) to be bonded to cover their obligations for livestock. As each of these is registered with the Department, bond coverage will be required.

- *Full and accurate accounting.* All persons buying, selling, or handling livestock in commerce are required to provide the farmer or rancher with a full and accurate accounting of all facts connected with the sale of his livestock.

- *Reasonable and adequate facilities at fair and nondiscriminatory rates.* Required under the law at all posted markets.

- *Sale of livestock under open competitive conditions.* The Act prohibits any unfair, deceptive, unjustly discriminatory, or monopolistic practices which would prevent the farmer from receiving full value for his livestock.

How do the USDA marketing specialists carry out all of these provisions of the Packers and Stockyards Act?

Regular supervisory trips to livestock markets and packing plants provide the primary means of keeping informed of what is going on. In addition, any individual may make a complaint if he feels that he has been treated unfairly by anyone subject to the Act. Such complaints are investigated without cost to the complainant.

If the livestock seller believes some action of a stockyard company, a marketing agency or dealer subject to the Act has caused him loss or damage in marketing his livestock, he may also file a petition for reparations. After investigation and hearing in the Department, an award may be made if his claim is justified.

The basic penalty available to the P & S Branch, when violations are found, is the cease and desist order. Issuance of this order means that the violator must discontinue the practice in question.

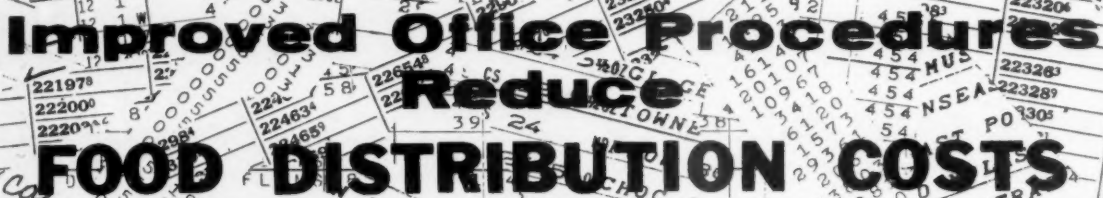
More serious violations by market agency and dealer registrants may bring about a suspension of the violator's P & S registration—which, in effect, bars him from doing business for the period of the suspension.

Violations of criminal law, such as false weighing and accounting, when uncovered by P & S investigators, are turned over to the Department of Justice for prosecution.

The Department of Agriculture has wide authority under the terms of the Packers and Stockyards Act, and the USDA employees charged with carrying out its provisions make every attempt to see that the law is applied impartially and thus fulfills its purpose: To assure fair competition and fair trade practices in livestock marketing and in the meat packing industry.

All livestock sold in interstate commerce comes under regulations of Packers and Stockyards Act.





# Improved Office Procedures Reduce FOOD DISTRIBUTION COSTS

by John C. Bouma

**W**HOLESALE food distributors, who usually keep a close eye on sales, deliveries, and inventory turnover could do well to observe just as closely some of the techniques used in recording these items in their offices.

Within an accounting department, there are numerous ways of increasing efficiency and reducing operational costs. Any improvement here would help to lower the cost of marketing farm food products.

Research into better ways of doing this office work is essential if we are to improve the overall marketing of agricultural products. Although there are thousands of individual wholesalers in this country, these firms are unable to conduct such research by themselves.

This, then, was the purpose of a recent AMS research project, which studied the office procedures of 20 wholesale food distributors around the country.

According to these marketing specialists, a wholesale food distributor must have a business volume of \$6 million a year before it will pay him to install mechanical tabulating equipment. If his volume is less than this, manual methods would be more economical.

The larger company, however, gains three advantages by using automatic tabulating equipment instead of manual methods. It has a reduction in warehouse labor requirements, fewer sales losses due to "out-of-stock" situations, and more complete inventory control.

An additional advantage of automatic tabulators is that they give management by-product reports at low cost. A food distributor can obtain

commodity sales by individual items or product groups and thus figure turnover and gross or retail profit. He can obtain an analysis of customer purchases as well as the sales made by each of his own people. And, he can get stock summaries on the sales made and the quantity of merchandise on hand.

As basic tabulating equipment, a wholesale food distributor should have an accounting machine, a sorter, a card punch, and a reproducing punch. Along with these, it is necessary to have the correct forms and invoices as well as an effective filing system.

Wholesalers are finding it economical to change from a 3-copy invoice to a single copy invoice having a perforated side strip. The single invoice not only reduces paper costs but eliminates filing the two extra copies. It also permits machine verification of accumulations and totals.

In preparing "out-of-stock" reports with automatic tabulating equipment, the wholesaler has his choice of either the "commodity out" or the "tally out" card methods. The "tally out" method, which also tabulates the number of customers ordering an item, costs 36 percent less than the "commodity out" method. The latter method, however, offers one advantage not possible with the tally out cards. It allows the wholesaler to let the customer know which items on his order have not been shipped.

Every wholesale food distribution business should use pre-printed order books. This is true for both manual or tabulating machine methods. Preparation and processing of handwritten invoices requires more than eight times as many man-hours as does the order book method of invoicing.

When preprinted order books are used with manual methods, warehouse

stocks are stored in the same sequence as they are listed in the order form. This increases productivity in order assembly.

With automatic tabulating equipment, plastic card dividers with prongs work well. Rotary card tub files also prove more efficient than standard upright tubs.

Commodity card columns must be properly grouped for future handling to insure the best possible efficiency and accuracy in the tabulating department. Card columns should be arranged with information in the same sequence as it appears on the source document.

All wholesale food distributors should use a 5-digit commodity code instead of the more frequently used 4-digit code. This provides greater flexibility for assignment of code numbers in the proper order book sequence for the many new items added to the grocery line each year.

The most efficient arrangement of cards in the tub files is with the commodity cards next to the divider cards. Cards are then pulled from the rear or next to the item divider card. Card pullers are not as productive as a system of key punch operators in the batch billing method of invoice preparation and inventory control.

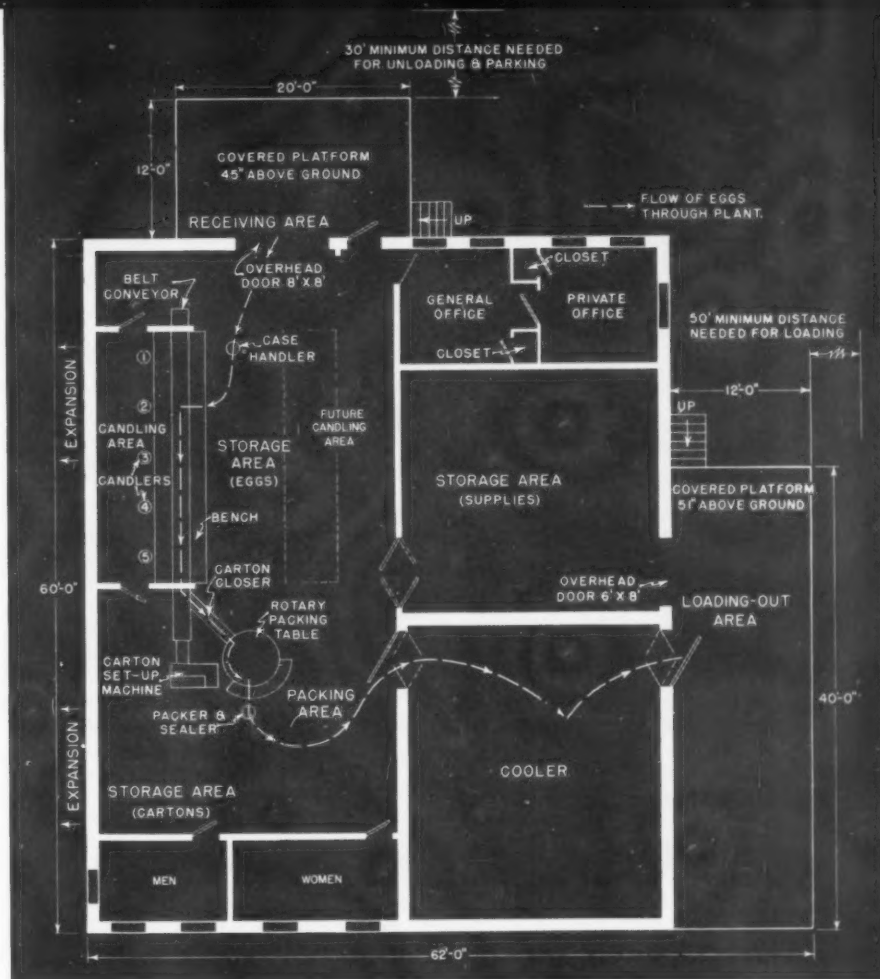
However, with key punch machines and the batch billing method, there is the added cost of machine rental and a minimum delay of 48 hours between receipt of the order and its delivery.

A more detailed and complete account of the AMS research study of manual and machine tabulating methods may be found in MRR 271, "Improved Methods Among Wholesale Food Distributors for Inventory Control, Sales Accounting, and Shipment of Merchandise."

The author is a marketing specialist in the Marketing Research Division, AMS.

# A DESIGN for a commercial egg grading and packing plant

by John A. Hamann and Evans Winter



**H**ERE'S a practical plant layout for a small or medium-size egg grading and packing operation. Designed with an eye toward future expansion, it offers the plant a chance to grow without bursting its seams.

The model layout, developed by the Marketing Research Division of AMS, is the result of a careful study of 24 typical plants. It takes into consideration the special problems of the egg grading and cartoning operations and presents an efficient and practical plant design.

The proposed layout is best suited for the average small plant handling about 125 cases of eggs a day. But, it is so arranged that this capacity can be doubled without a costly shut down or additional facilities.

To adapt the plant for handling a uniform, top-quality product from controlled flocks, the building can be ex-

The authors are staff members of the Marketing Research Division of AMS.

panded on one side. Such an addition would make room for automatic or semi-automatic grading and packing units, which could be installed to supplement manual operations as the business expanded. Duplicate storage space could also be added if this became necessary.

But before even the basic design can be put to effective use, certain building and property requirements must be met. For example, the grounds must be large enough to allow roadway access from two sides of the building and afford sufficient room for a building addition.

The site itself should be set well back to provide space for loading and unloading.

The building should be a one-story concrete or cinder block structure with 14-foot insulated ceilings and a roof constructed of long-span steel trusses. (This eliminates space-consuming building columns.) The loading docks

should be truck-bed height, and the refrigerating and heating units self-contained.

If the plant operator meets these specifications, he will find he has gained several important advantages in his grading and packing operation. First, and undoubtedly foremost, is the fact that his construction and maintenance costs will be low.

The layout will give him a maximum utilization of floor space with adequate work station space. The product will flow in a straight line through the plant with a minimum of cross-traffic interference. And, there will be plenty of room for expansion without excess idle floor space or the need to stop operations during expansion alterations.

Because of the way the plant is laid out, shipping and receiving areas are within view of management offices. There also are adequate toilet and washroom facilities.





Old-fashioned cultivator, tenant house, and cotton land symbolize problems of many areas like Franklin Parish. Under Rural Development Program, new crops and better marketing facilities are promoted. Here, Agent Taylor inspects crop of tomatoes; new elevator stands ready to handle grain, soybeans.

Efficient marketing is part of

## RURAL DEVELOPMENT PROGRAM

by Joseph C. Doherty

**I**MPROVING markets for farm products is one of the quickest ways of adding to income on small, low-income farms, according to many workers assigned to the new Rural Development Program.

The program, inaugurated by Secretary of Agriculture Ezra Taft Benson in 1955 after an extensive study by the Department of Agriculture, is now going forward on a pilot basis in about 100 rural counties in 30 States and Puerto Rico. Research, education, and community action are combined in the program to promote a better balance between agriculture and industry in low-income farm areas. More efficient farms, able to compete in our economy, are also a prime objective.

One of the outstanding "pilot counties" in rural development is Franklin Parish, La. And what makes the program so effective here is the two-way

emphasis on BOTH improved agriculture and marketing.

Experience in the parish to date proves that an early effort to develop more efficient farms pays off—not only in dollars and cents but also in stimulating local interest in the work. Nothing builds interest like successful projects. And there are several in Franklin Parish.

Franklin's traditional crop is cotton. However, when the Rural Development Program started early in 1957, more than 55 percent of the parish farms were down to less than 16 acres of cotton, the principal source of family income.

Obviously, this meant low income. More than 65 percent of farm families earned less than \$2,500 a year in gross income from farming.

Soon after the program got started, the parish extension service, headed by Guy Luno, Agent for Rural Development Claude Taylor, and a local businessman, T. C. Hatfield, launched a double-barreled attack on the problem, promoting new crops and better

marketing facilities. They enjoyed the wholehearted support of Franklin Parish's Rural Development Committee as well as farm, business, and other leaders.

Agent Taylor held meetings with farmers all over the parish to promote new crops and the expanded production of tomatoes and sweetpotatoes, previously grown only for home use.

His No. 1 achievement was a campaign to persuade farmers to expand production of milo (a grain sorghum). Through meetings, radio broadcasts, newspaper ads, and with the help of the Rural Development Committee, Taylor and other farm agency workers did such a good job that some 3,000 acres of the new crop were grown last year.

Commenting on this phase of the work, Taylor says, "This is a crop that can be grown on many of the small farms. It requires minimum labor. It can be produced and harvested with machinery owned by the farmer or rented from a neighbor. Milo lends itself well to livestock expansion, a big

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goal around here."

While Taylor worked on the production end of the grain sorghum project, the parish committee, led by Hatfield, planned new marketing outlets. As a first step, Hatfield put up the money to build a grain elevator, which went into operation last year. It furnished a market for 95,000 bushels of grain and soybeans for some 200 farmers, many of them small producers. Their receipts amounted to \$183,000 the first year of operation.

In a similar manner, Agent Taylor and the Parish Rural Development Committee worked together to increase commercial sweetpotato production and give farmers a new market. They started with the big advantage of operating in an area free of the destructive sweetpotato weevil.

Once again, farm agencies, with Taylor doing much of the spade work, utilized meetings, news media, and other outlets to promote the crop and provide farmers with production information.

The Rural Development Committee spearheaded a successful drive to raise \$9,000 to build a packing shed. Stock, at \$25 a share, was sold to businessmen and others in parish towns. The shed went into operation this past summer.

Franklin farmers produced some 500 acres of sweetpotatoes last year—a tremendous gain over the spotty, insignificant commercial production of a few years ago. Program leaders aim to increase this another 1,000 to 2,000 acres. They've also developed plans for a canning plant to be financed through a local bond issue.

Commercial production of tomatoes and other vegetables, sheep and livestock also have priority on the Franklin committee's "rural development schedule." Taylor observes, "Too many of our farmers are raising grain for sale in other areas, whose farmers then get the benefit of livestock prices. The committee is going to try to help our farmers market this grain in the form of livestock."

Leaders like Taylor and Hatfield are showing that the problem of declining cotton production in some parts of the South can be licked. The formula: A sustained, well-balanced community campaign to promote production AND marketing of new crops.

## Peanut Consumption Up, Supply Exceeds Demand

At one time peanuts may have whetted only the appetites of small boys and circus elephants; today, almost all of us are peanut patrons.

This year, Americans ate an average of 4.5 pounds of shelled peanuts—an increase of 0.1 pound over last year.

More peanuts were consumed in peanut butter than any other food product, but lots, too, went into candies or were eaten salted. Some peanuts also were used for roasting, and the remainder was consumed as food on farms.

Peanut butter, however, took over 50 percent, or 356 million pounds, of the 1957-58 peanut crop. In the last decade, the per capita consumption of peanuts in peanut butter has gone from 1.7 pounds to 2.1 pounds. In this same period, consumption of salted nuts increased from 0.8 pound to 1 pound, while peanut candy and other products remained about the same.

The only marketed form of peanuts that decreased in per capita consumption has been cleaned unshelled peanuts for roasting. Despite this per capita drop, the total quantity of roasted peanuts has not declined. Farm uses for peanuts as seed and feed as well as farm losses have also remained relatively stable in recent years.

Peanut farmers shouldn't have any trouble meeting the rising demand for their product. The 1958 peanut crop is expected to reach 1,797 million pounds, 332 million pounds more than last year. This will provide many more peanuts than are needed for food and farm uses, and CCC is likely to acquire the surplus.

## Results of Peach Maturity Forecast in Colorado

Remember the story "Forecasting Peach Maturity in Colorado" which appeared in the August 1958 issue of AGRICULTURAL MARKETING?

Well, we have the results of how the forecasts came out this season: Only 1 day off the beam. The industry estimate was 5 days off.

The new, more exact method of forecasting peach maturity was developed by J. W. Gannaway and William J. Cremins of the Agricultural Marketing Service's Fruit and Vegetable Division. Mr. Cremins writes from Denver:

"The Fruit and Vegetable Division method was tested during the 1958 season, and the results were very favorable indeed.

"Full bloom occurred on April 17 followed by 3 noncreditable days. Hence, 3 days added to the 119-day base for the first carlot equivalent and the 123-day base for the first 25-car day produced forecasts of August 17 and 21, respectively. The first carload was shipped on August 16, and August 20 was the first 25-car day. Both forecasts were only a day off the observed.

"What is more important, as early as mid-June the forecasts warned the industry of an impending early harvest. The industry was prepared."

## Retail Food Store Sales Up 6 Percent

U. S. demand for farm products is strong and growing. In the first 9 months of 1958, sales at retail food stores were 6 percent above the same period of 1957 as both prices received by farmers and marketing spreads rose. The farmer's share of the consumer's dollar for the "market basket" of farm produced foods held at the 1957 level of 40 cents.



Tractor with rear mounted forklift distributes empty pallet boxes, hauls full ones in orchard.

# Handling and Storage of Apples in Pallet Boxes

by Joseph F. Herrick, Jr.

**A** STURDILY BUILT pallet box, lined with corrugated fiberboard, takes a lot of the bumps out of an apple's trip from the orchard to the warehouse. Although the route is still not entirely bruise-free, this type of box cuts down considerably on the amount of injury.

Recent studies made by the Marketing Research Division of AMS show that the use of lined pallet boxes enables the grower-shipper to bring a better quality apple to the warehouse at lower cost. It also provides him with an economical, handy method of storing his apples.

Most pallet boxes, whether lined or not, caused less bruising than carefully handled field boxes. Some pallet boxes, however, performed better than others.

The depth of the box seemed to make a big difference in the extent of bruising. A lined box, 24 inches deep, carried the fruit much better than did either a 27- or 32-inch box.

However, a 34-inch unlined pallet box with 10-inch removable sides worked almost as well as the 24-inch lined box. The removable sides helped to cut down on the damage incurred when the fruit was emptied from the picker's bag into the pallet box.

Rather surprisingly, a pallet box with  $\frac{3}{4}$ -inch spaces between the boards offered better protection than a box with solid sides of smooth wood. The spacing of the boards evidently provided greater stability to the weight of the load. This was particularly true if the spacings ran horizontally rather than vertically.

Bruising, however, does not occur uniformly throughout a pallet box.

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There is more damage to the fruit lying along the sides and on the bottom of the box. Some of this side bruising can be reduced by properly lining the pallet box. This would eliminate a lot of the injury that occurs when the box is tilted in the pick-up operation. Lift-truck operators should be careful to lift the pallet box first, then tilt it.

The need for careful handling also became evident in the warehouse. Apples in pallet boxes on the bottom of a stack consistently showed more bruising than fruit in the upper boxes. This probably was because the lift-truck operator has to "feel" the top two layers of pallet boxes into position. He also has to move cautiously to prevent the load from shifting.

In contrast, the operator has no trouble positioning the bottom two tiers of pallet boxes. Here, he moves more rapidly, putting more force on some of the apples.

More careful handling, together with a well-designed pallet box, can reduce the amount of bruising that occurs during the trip from field to warehouse. This is a definite advantage to the grower-shipper.

Pallet boxes offer the warehouseman another type of advantage. Apples in certain pallet boxes cool more rapidly than those stored in standard boxes on pallets. And each hour saved in lowering the field temperature of the apples means that much longer storage life for the fruit.

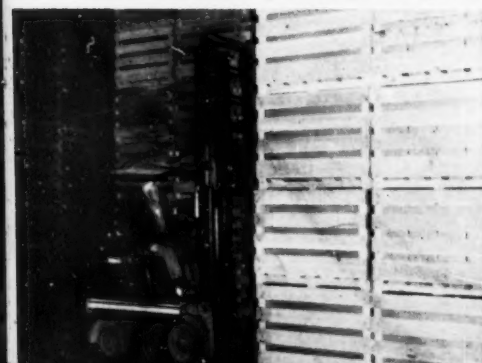
Pricewise, pallet boxes offer the best advantage of all. A grower-packinghouse operator should be able to save \$70 to \$85 per 1,000 standard-box equivalents by shifting from a palletized standard box operation to one using pallet boxes. On a volume of 100,000 equivalent standard boxes, an annual saving of between \$7,000 and \$8,500 might be expected.



Fourteen pallet boxes are set on bolster at edge of orchard for later pickup by straddle-carrier. Motortrucks also are used to carry pallet boxes.



In the warehouse, apples packed in pallet boxes cool more readily than those stored in standard boxes on pallets. This increases storage life.





# MARKETING MILK IN ALASKA



by Jack E. Klein

**A**GRICULTURAL MARKETING SERVICE researchers have been checking the milk supply of Alaska, the newest arrival to our family of States. Here, lots of milk is consumed each year, but only half of it is fresh fluid milk and almost all of it is difficult to obtain.

Even in the major market centers of Ketchikan, Sitka, Juneau, Kodiak, Anchorage, and Fairbanks, the milk supply and distribution problem is difficult. Although some milk is produced locally, much has to be imported from Seattle and other areas in the Pacific Northwest.

Only consumers living within a relatively limited area surrounding the larger cities are able to get fresh milk. Others in outlying districts must rely on canned whole or evaporated milk, or nonfat dry milk.

Even the Department of Defense does not supply its troops with fresh fluid milk, and only limited quantities are available through its commissaries. U. S. troops located in major installations are served locally recombined milk. This product is also offered for resale at commissaries in these areas.

Recombined milk is available to civilian consumers only in Ketchikan and then in limited quantities. As a supplement, Ketchikan residents use concentrated (3-1) milk. Concentrated milk is also sold in Sitka and Fairbanks.

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Manufactured dairy products, such as canned whole or evaporated milk or dry milk solids, are widely distributed throughout Alaska. These products offer the advantage of reduced weight and increased storability. In an area that lacks both transportation and storage facilities, these factors are important. They make concentrates useful not only in the populated centers as fresh milk supplements, but also in isolated areas where it would be impossible to keep a more perishable product.

Yet, despite this difficult marketing situation, milk consumption in Alaska is relatively high. It varies between  $\frac{1}{2}$  to  $\frac{3}{4}$  quart per day—or an average of approximately 0.4 quart per person. (Fifty percent of this is consumed as fresh fluid milk.)

This per capita average compares favorably with the average consumption within the continental U. S. It equals the U. S. per capita figure of

0.4 quart of fresh milk and cream.

In Alaska, consumption and production conveniently increase and decrease together. Increased milk production in the spring and summer months coincides with the increased milk demands of Alaska's seasonal workers.

Several other factors serve to stabilize prices paid by consumers for fluid milk in Alaska. In some markets, there is a certain amount of supply control; in others, there is vertical integration of wholesale and retail groceries. Or, changes in the Seattle wholesale cost are reflected in the prices at the retail level in Alaska.

But whatever the means of stabilization, prices still depend largely upon transportation costs. In marketing Pacific Northwest milk in Alaska, these costs run from one-fourth to one-half of the retail price. They not only affect the price of Seattle-produced milk, but of Alaska milk as well.

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## OVERSEAS RESEARCH PROGRAM TO BENEFIT U. S. AGRICULTURE

The U. S. Department of Agriculture is embarking on a broad new program to obtain agricultural research in foreign countries.

The marketing phase of the program is expected to benefit U. S. producers and processors by expanding the markets for their products. The research will seek new knowledge of quality evaluation of farm commodities, better understanding of the biochemical changes that occur in maturing fruits and vegetables, and new information on market diseases, market insect pests, and consumer habits and preferences in foreign countries.

This overseas research will be paid for with foreign currencies accruing in the various foreign countries to the account of the U. S. from sale of surplus agricultural commodities under Public Law 480.

# The Changing Market

## Receipts for milk products

Farm receipts from the sale of milk products declined slightly in 1958, but AMS economists see some increase likely for 1959. Both total receipts and returns to individual farmers are expected to go up.

In 1958, total receipts were about 1 percent below the record high of \$4,643,000,000 of 1957. And, if the decline in number of farms selling milk is taken into consideration, the average receipt per farm was probably higher than a year earlier.

On a hundredweight basis, however, farmers did receive a little less for their milk in 1958 than they did in 1957. The support level was lowered in April of 1958, and for the year as a whole milk brought about \$4.12 per hundredweight compared to \$4.20 in 1957. The price of butterfat also ran lower this year than last.

Interestingly enough, the sale of milk products by farmers apparently increased even though milk production declined slightly. Farmers sent more of their milk to market and used less milk products at home.

## New 38-city unload report

Ever since November 3, the consolidated market reports put out by the Fruit and Vegetable Division of AMS have shown the number of railroad cars unloaded instead of the number of arrivals at each of 38 cities.

The reason for this change was because arrival figures don't always indicate the market situation in a particular city. Often, a car listed as an

arrival is later diverted to another market, and, therefore, does not contribute to the supply of the original market.

The daily 16-city arrival and track report, which covers major commodities during active marketing seasons, will be continued for the present. When the new 38-city unload report has been issued long enough that trends can be determined from it, the 16-city report may be discontinued.

Reports on fruits and vegetables arriving by truck will remain unchanged. Unloads will continue to be reported by commodity and State of origin in railroad car equivalents.

## Meat consumption in 1958

Smaller meat supplies are holding down per capita consumption. During 1958, the slaughter of livestock and outturn of meat ran about 4 percent behind 1957 and 8 percent less than 1956.

Total supplies this year would have been even less if our imports had not increased.

This year's meat consumption is expected to run about 152 pounds per person, the lowest since 1952. Beef consumption is down 4 pounds to 80.5; veal down 2 pounds to 6.8; lamb and mutton down 0.1 to 4.1; and pork (excluding lard) down 1 pound to 60.5 pounds.

During this same period, poultry meat has taken a turn upward. Chicken and turkey consumption averaged 44.1 pounds—2.6 pounds more this year than last and the highest on record.

## Trend toward smaller size cans

For a long time, the No. 2 can was the No. 1 choice of the American housewife. Not so any longer.

More canned vegetables are appearing in smaller retail sizes.

This trend became definite in the mid-1930's. Though temporarily halted by the tin conservation measures of World War II, it gained further momentum immediately after the war. Today, most canned vegetables come in 303 and 300 size cans, which are about a fifth smaller than the No. 2.

Take snap beans, sweet corn, lima beans, and green peas, for instance. Three-fourths of the total pack of these four vegetables went into No. 2 cans in 1937-39. But by 1955-57, virtually none was put up in this size container; the quantity packed in No. 303 and No. 300 sizes increased from less than 10 to more than 60 percent of the total.

In 1955-57, more than 60 percent of the beets processed were packed in No. 303 cans and about 45 percent of the spinach and tomatoes.

Of course, the large size can is still predominant for certain items. The No. 2½ can is the most popular for sauerkraut and pumpkin and squash, but even here the smaller sizes are increasing in importance.

The trend away from the No. 2 can is also moving in the other direction. Larger, institutional sizes have gained in popularity during the past 2 decades. A significantly larger proportion of snap beans, sweet corn, lima beans, carrots, green peas, tomatoes and pumpkin and squash are now packed in the larger No. 10 cans.

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